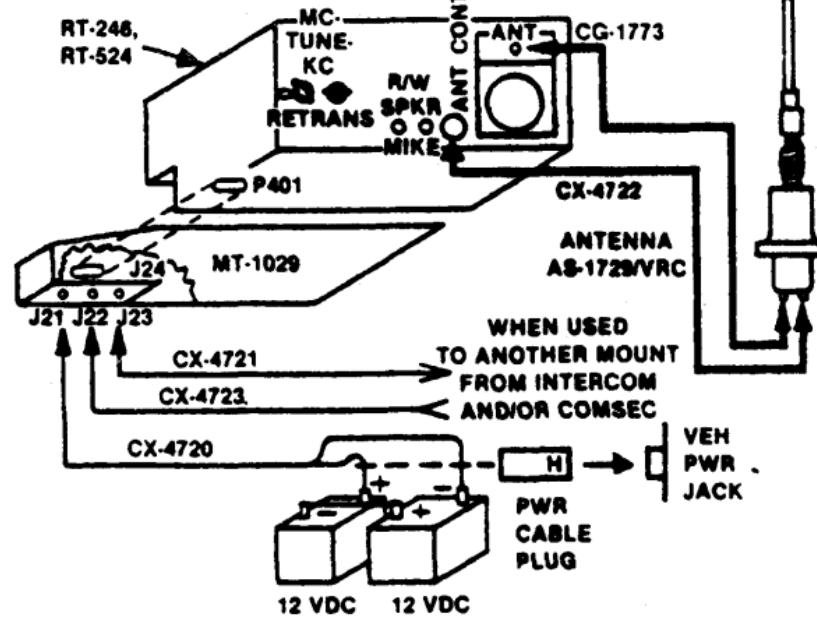


## TECHNICAL MANUAL

HEADQUARTERS  
DEPARTMENT OF THE ARMY  
OCTOBER 16, 1980

# OPERATOR QUICK CHECKS FOR RECEIVER - TRANSMITTERS RT-248(\*)/VRC (5820-00-892-0823) & RT-524(\*)/VRC (5820-00-892-0822)

DISTRIBUTION: ACTIVE ARMY, USAR, ARNG: To be distributed in accordance with DA Form 12-51, Operator Maintenance requirement for RT-246/VRC and RT-524/VRC with AN/VRC -12 and AN/VRC -42 thru 49.



## CAUTION

- DON'T:** Start Vehicle Jeep or Track With Commo On
- DON'T:** Paint Antenna or Matching Unit
- DON'T:** Wash Commo With High Pressure Hose
- DON'T:** Turn Off Engine of Track Vehicles Before  
Commo Is Off
- DON'T:** Hook Up Commo Mounts Until You Are Sure  
of (+ or -) Polarity

**SYMPTOM: Dial lamp lights; no sound heard in speaker and earphone (SQUELCH OFF).**

- STEP 1** Check to see if power circuit breakers have been tripped. Check antenna control cable connections at RT ANT CONT jack and antenna base; then turn power switch to OFF (breaker-reset) then back to low or high.
- STEP 2** Check to see that power cable is firmly connected to underside (left-outside jack) of RT mount. Check to see if rubber cover at J-24 on MT-1029 is removed.  
**FIRMLY TIGHTEN POWER CABLE PLUG TO JACK.**
- STEP 3** Check to see that RT is properly secured to mount. Push the RT back on the mount as far as it will go, engage mount clamps with RT feet; then tighten clamps securely by turning thumbscrews clockwise (finger tight).
- STEP 4** Check power cable connection to vehicle power source. WHEEL VEHICLE: RED/WHITE WIRE TO POSITIVE (+) TERMINAL OF ONE BATTERY (1); GREEN/BLACK WIRE TO NEGATIVE (-) TERMINAL THE OTHER BATTERY (2). ADDITIONALLY, NEGATIVE (-) TERMINAL OF (1) BATTERY STRAPPED TO POSITIVE (+) TERMINAL OF (2) BATTERY.  
TRACK VEHICLE: FIRMLY TIGHTEN POWER CABLE PLUG TO VEHICLE MASTER POWER JACK.
- STEP 9** Check for weak or dead vehicle batteries.  
WITH RT TURNED ON, TURN VEHICLE HEAD LAMPS ON; THEN CHECK HEAD LAMPS INTENSITY.

By Order of the Secretary of the Army

official:

J. C. PENNINGTON

Major General, United States Army

The Adjutant General

E. C. MEYER

General, United States Army

Chief of Staff

**SYMPTOM:** Dial lamp not lit in speaker and earphone (SQUELCH OFF).

**STEP 1** Check X-mode cap connection to RT X-mode jack. Finally, TIGHTEN X-MODE CAP PLUG TO JACK.

**SYMPTOM** Dial lamp light; normal speaker sound, no sound heard in earphones.

**STEP 1** Clean audio plug and jack contacts. Remove audio accessory and clean contacts of audio jack and audio plug with pencil eraser.

**STEP 2** Check for defective audio accessory. Substitute a known good audio accessory

**STEP 3** Check for defective audio jack. Connect a known good audio accessory to a different audio jack.

**SYMPTOM:** RT blower runs; receiver sound quieted; no voice sidetone when PUSH-TO-TALK switch is pressed (SQUELCH OFF)

**STEP 1** Remove audio accessory. Clean audio accessory plug and audio receptacle with pencil eraser

**STEP 2** Check for defective audio accessory. Substitute a known good audio accessory.

**STEP 3** Check for defective audio accessory jack. Connect a known good audio accessory to a different audio accessory.

**STEP 4** Check X MODE cap connection to RT X-MODE jack

**SYMPTOM:** With squelch switch at NEW ON, cannot hear distant station reply; call lamp does not light.

**STEP 1** Turn your squelch switch to OFF and communicate with station Tell distant station to place his squelch in NEW ON.

**STEP 2** Determine If distant station is too far away for his squelch tone to activate your receiver. Communicate with distant station with the squelch on your R.T set to NEW OFF.

**STEP 3** Check Xmode cap connection to RT X-MODE jack.

**SYMPTOM:** RT blower runs; receiver should quieted; no voice sidetone when PUSH-TO-TALK switch is pressed (SQUELCH OFF).

**STEP 1** Check to see that RT tuning controls are set to assigned frequency

**STEP 2** Check RT for normal operation. Try to communicate with a nearby radio set, if available

**STEP 3** Check antenna matching unit. Change RT MHz (MC) control to a new frequency. Listen for switching noise at matching unit Return RT MHz (MC) control to operating frequency

**STEP 4** Check frequency range switch on matching unit. Range switch should agree with frequency setting of RT unit. Manually tune matching unit, if possible.

**STEP 5** Check to see that antenna elements center pins and two each base copper strips are present and intact. Check to see that both antenna elements are screwed on tightly, and all antenna cables are tight. Antenna must be in upright position. Tighten all screws to cable connections

**SYMPTOM:** RT blower does not run; receiver sound heard when PUSH-TO-TALK switch is pressed (SQUELCH OFF.)

**STEP 1** Disconnect antenna control cable from RT. Turn power switch to OFF (breaker-reset) then back LOW or HIGH.

**STEP 2** Remove audio accessory and clean contacts of audio receptacle and audio plug with pencil eraser.

**STEP 3** Check for defective audio accessory. Substitute a known good audio accessory.

**STEP 4** Check for defective audio accessry jack. Connect a known good audio accessory to a different audio receptacle.

For assistance, NAME \_\_\_\_\_

call ORGAN. MAINT TELE. NO. \_\_\_\_\_

COMMENTS: Send DA Form 2028 to: Cdr. CERCOM,

ATTN: DRSEL-ME-MQ, Fort Monmouth, NJ 07703.